

REMARKS

Claim Rejections

Claims 1-10 and 12-19 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claims 1-10 and 12-19 are also rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-8 and 12-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lobo et al. (U.S. 5,835,616) in view of Giacchetti (U.S. 2003/0065589). Claims 9-10 and 17-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lobo et al. in view of Tian et al. (U.S. 2003/0133599).

Amendments to Specification

Applicant has amended the specification as noted above to cure obvious grammatical and idiomatic inaccuracies. It is believed that the foregoing amendments to the specification overcome the outstanding objections thereto. No "new matter" has been added to the original disclosure by the foregoing amendments to the specification.

Claim Amendments

By this Amendment, Applicant has amended claims 1 and 19 of this application. It is believed that the amended claims specifically set forth each element of Applicant's invention in full compliance with 35 U.S.C. § 112 (See, e.g., Applicant's Specification, p.8, II.23 – p.9, II. 2 and Fig. 6), and define subject matter that is patentably distinguishable over the cited prior art, taken individually or in combination.

Lobo's ('616) teaches templates which are geometric "layouts" (contents) of facial features containing geometric data including coordinates and ratios for facilitating feature detection (usage), in comparison to Applicant's templates which are image process "procedures" (contents) containing (1) sequence of

image process steps, (2) regions to apply (3) parameters of each step, to enhance the facial images (usage) after feature detection. In addition Lobo's templates contains predefined feature position and serve for facilitating feature detection, while Applicant's templates contain parameter sets describing how the image will be modified, the templates being applied after the facial feature is detecting. It is clear that, although both Lobo and Applicant use the word "template" these are two totally different concepts and Applicant's face-adjusting templates is not derivable from Lobo's feature detection templates

Giacchetti teaches a method for synthesizing facial images by manually picking up ready "sub-images" of facial parts (e.g. eyes, nose, mouths, etc).

The manual adjusting method Giacchetti teaches is for working on simulated facial images constructed with prepared facial portions. The adjustments are overlaying prepared images or exchanging prepared facial portions. However, Giacchetti's method doesn't work with real facial photos. (*Synthesis in, synthesis out*).

In contrast, Appicant's disclose a method for enhancing existing facial images by choosing a preset image process "procedure" and optionally adjusting the "parameters" of the images process steps. Applicant's method is effective on any facial photos/images and changes the colors, textures, positions, shapes and expressions of the original photos/images. (*Original in, the adjusted out*).

On page 8 of the outstanding Office Action, the Examiner admits that Lobo "does not teaches the preset face-adjusting template is a template having an assortment of dynamic series of facial expression variations and animated comic effect." The Examiner attempts to supply this deficiency by stating "the background of the prior art of Tian teaches the preset face-adjusting template is a template having an assortment of dynamic series of facial expression variations and an animated comic effect (happy, 330) see for example figure 3b." However, Applicant respectfully submits that Tian et al. do not teach anything about the animation of the facial expression images. The static happy expression (330) shown in Figure 3b does not teach or suggest the animation, i.e. multiple static

images shown in quick succession to give the illusion of motion (e.g., as in films and cartoons), of facial expression images as taught by Applicant.

It follows from the above, that Tian et al. do not teach or suggest an image-adjusting method for adjusting a facial image in which the original human facial image obtained by the image-reading unit, the image being adjusted using multiple face-adjusting templates is used to create an animated series of facial expression images. Tian et al. also do not teach or suggest adjusting the animated images to include a comic facial feature.

Applicant believes, that neither Lobo et al., Giacchetti, nor Tian et al. teach or suggest: an image-adjusting system for adjusting a facial image including an image-reading unit for reading an original facial image; a feature detection unit for recognizing and positioning facial characteristics of the original facial image; a face-adjusting template database for storing a plurality of face-adjusting templates that are preset, wherein each of the plurality of face-adjusting templates further comprises different face adjustment parameters that are preset; a template selection unit selecting a preset face-adjusting template having desired facial characteristics from the face-adjusting template database, and the preset face-adjusting template being applied to the original facial image and to modify the facial characteristic of the original face image; and a manual adjusting unit for adjusting the facial characteristic of the original facial image manually. Nor do the cited references teach an image-adjusting method for adjusting a facial image which selectively adjusts the original human facial image obtained by an image-reading unit, the facial image being adjusted using multiple face-adjusting templates to create an animated series of facial expression images.

Even if the teachings of Lobo et al., Giacchetti, and Tian et al. were combined, as suggested by the Examiner, the resultant combination does not suggest: an image-adjusting system for adjusting a facial image including an image-reading unit for reading an original facial image; a feature detection unit for recognizing and positioning facial characteristics of the original facial image; a face-adjusting template database for storing a plurality of face-adjusting templates that are preset, wherein each of the plurality of face-adjusting

templates further comprises different face adjustment parameters that are preset; a template selection unit selecting a preset face-adjusting template having desired facial characteristics from the face-adjusting template database, and the preset face-adjusting template being applied to the original facial image and to modify the facial characteristic of the original face image; and a manual adjusting unit for adjusting the facial characteristic of the original facial image manually. Nor do the cited references teach an image-adjusting method for adjusting a facial image which selectively adjusts the original human facial image obtained by an image-reading unit, the facial image being adjusted using multiple face-adjusting templates to create an animated series of facial expression images. As a result, the Examiner has not yet laid forth a *prima facie* case of obviousness with regard to Applicant's new claims.

Table 1, attached herewith, outlines the many differences between Applicant's invention and the cited art.

It is a basic principle of U.S. patent law that it is improper to arbitrarily pick and choose prior art patents and combine selected portions of the selected patents on the basis of Applicant's disclosure to create a hypothetical combination which allegedly renders a claim obvious, unless there is some direction in the selected prior art patents to combine the selected teachings in a manner so as to negate the patentability of the claimed subject matter. This principle was enunciated over 40 years ago by the Court of Customs and Patent Appeals in In re Rothermel and Waddell, 125 USPQ 328 (CCPA 1960) wherein the court stated, at page 331:

The examiner and the board in rejecting the appealed claims did so by what appears to us to be a piecemeal reconstruction of the prior art patents in the light of appellants' disclosure. ... It is easy now to attribute to this prior art the knowledge which was first made available by appellants and then to assume that it would have been obvious to one having the ordinary skill in the art

to make these suggested reconstructions. While such a reconstruction of the art may be an alluring way to rationalize a rejection of the claims, it is not the type of rejection which the statute authorizes.

The same conclusion was later reached by the Court of Appeals for the Federal Circuit in Orthopedic Equipment Company Inc. v. United States, 217 USPQ 193 (Fed.Cir. 1983). In that decision, the court stated, at page 199:

As has been previously explained, the available art shows each of the elements of the claims in suit. Armed with this information, would it then be non-obvious to this person of ordinary skill in the art to coordinate these elements in the same manner as the claims in suit? The difficulty which attaches to all honest attempts to answer this question can be attributed to the strong temptation to rely on hindsight while undertaking this evaluation. It is wrong to use the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit. Monday morning quarterbacking is quite improper when resolving the question of non-obviousness in a court of law.

In In re Geiger, 2 USPQ2d, 1276 (Fed.Cir. 1987) the court stated, at page 1278:

We agree with appellant that the PTO has failed to establish a *prima facie* case of obviousness. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching suggestion or incentive supporting the combination.

Applicant submits that there is not the slightest suggestion in either Lobo et al., Giacchetti, or Tian et al. that their respective teachings may be combined as suggested by the Examiner. Case law is clear that, absent any such teaching or suggestion in the prior art, such a combination cannot be made under 35 U.S.C. § 103.

Neither Lobo et al., Giacchetti, nor Tian et al. disclose, or suggest a modification of their specifically disclosed processes that would lead one having ordinary skill in the art to arrive at Applicant's claimed method. Applicant hereby respectfully submits that no combination of the cited prior art renders obvious Applicant's new claims.

Summary

In view of the foregoing, Applicant submits that this application is now in condition for allowance and such action is respectfully requested. Should the Examiner not be of the opinion that this case is in condition for allowance, it is requested that this amendment be entered for the purposes of appeal.

Should any points remain in issue, which the Examiner feels could best be resolved by either a personal or a telephone interview, it is urged that Applicant's local attorney be contacted at the exchange listed below.

Respectfully submitted,

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TABLE 1

Patent No./ Location	Domain	Purpose	Subject	Method
5,835,616 (col. 9, lns 55-58; Figs. 6-9)	Image recognition	Find facial feature	Input facial images	Find the initial facial oval then put a template on it to facilitate locating facial features.
Applicant	Image modification	Adjust facial feature	Facial images after final feature recognition	Store face adjustment parameters for adjusting the feature proportion, skin color and texture, expressions and overlaid comic effects.
5,835,616 (col. 25, lns 27-35; col. 4, lns 33-36)	Image recognition	Find facial feature	Input facial images	Snakelet is a method to find curve on facial images like wrinkles and the Snakelet is a method to find curve on facial images of chin.
Applicant	Image modification	Adjust facial feature	Facial images after facial feature recognition	Face-adjusting templates contain parameters for adjusting skin textures like changing skin tone or removing wrinkles.
5,835,616 (col. 21, lns 5-6; Figs. 10-19)	Image recognition	Exclude improper facial images	Input facial images	Excluding unfavorable facial images with expressions or rotation before further analysis.
Applicant	Image modification	Adjust facial images	Facial images after facial feature recognition	Use preset face-adjusting templates to change the expressions of the original facial image.
5,835,616 (col. 25, lns 27-35)	Image recognition	Filter non-facial image	Input facial images	Use skin color as a restrictions for defining if the image is a facial image. Losing this restriction can compensate the occlusions and shadows (like moustaches and scars) for facial feature confirmation.
Applicant	Image modification	Adjust facial feature	Facial images after facial feature recognition	Face-adjusting templates contain parameters for adjusting skin textures like changing skin tone or removing wrinkles.

TABLE 1 (continued)

Patent No./ Location	Domain	Purpose	Subject	Method
U.S. 2003/ 0065589 A1 (page 4, paragraph [0055])	Graphic collage, Face synthesis	Simulate the use of beauty product	Synthesized facial image	Replace or change color of preset facial parts.
Applicant	Facial Image modification	Adjust facial images	Captured/recorded facial image	Adjust facial feature proportions, skin colors, textures and expressions of the original image, only comic effect is preset images and they are not facial part but additional overlaid graphics.
U.S. 2003/ 0065589 A1 (page 4, paragraph [0064])	Graphic collage, Face synthesis	Generating the initial simulated facial images	Synthesized facial image	Assign skin tone, skin color for the initial synthesized facial image.
Applicant	Facial Image modification	Adjust skin color of the original facial image	Captured/recorded facial image	Adjust skin tone, skin color of the original facial image.
U.S. 2003/ 0133599 A1 (Fig. 3b)	Psychology	A psychological theory for analyzing human expressions and emotions	Human/ human society	
Applicant	Digital Image processing	Adjust facial image	Captured/recorded facial image	Apply an assortment of face adjustment parameters to create dynamic facial images/animations.